

DNR, DNAR, or AND? Is Language Important?

Joseph L. Breault, MD, ScD, MPH, CIP

Chair, Institutional Review Boards, Ochsner Clinic Foundation, New Orleans, LA

ABSTRACT

The American Heart Association in 2005 moved from the traditional do not resuscitate (DNR) terminology to do not attempt resuscitation (DNAR). DNAR reduces the implication that resuscitation is likely and creates a better emotional environment to explain what the order means. Allow natural death (AND) is the name recommended in some settings to make the meaning even clearer. Most hospitals still use the obsolete DNR term. Medical staffs should consider moving to DNAR and in some settings to AND. Language is important.

INTRODUCTION

Physicians involved in the curative or palliative care of patients at the end of life know that good communication is part of that care. A time will come when each of us is no longer the attending physician but the frail patient at the end of life. We will be on the other end of the discussion about how we want the end to come: Do we want our chest pounded on, our heart shocked with a defibrillator, or our throat filled with an endotracheal tube?

As physicians, we realize those discussions often do not happen when it is obvious to the doctors that cardiopulmonary resuscitation (CPR) will help and the patient will likely return to a good life. Discussions

about code status usually happen when it is doubtful that the benefits of the interventions outweigh the burdens, even though national guidelines recommend that every person admitted to the hospital be asked about code status.¹

No CPR/advanced cardiac life support (ACLS) hospital orders are inherently anomalies. Before medical interventions, a physician obtains informed consent. Patients need to know the pros and cons of the proposed intervention and must consent to it. Doing something to patients without their consent may be deemed assault and battery under the law. We should never force an intervention, such as a cancer resection, on patients without their consent even if it is life saving. However, CPR turns informed consent on its head. Because the code situation occurs when the patient cannot give consent and with no time to ask surrogates, providers presume that patients want resuscitation attempts unless they have established beforehand that they do not. Boozang² suggests eliminating the presumed consent approach by having explicit discussions with all patients at hospital admission, as recommended by the American Heart Association (AHA).¹

COMPETING TERMINOLOGY

The table explains the meaning of do not resuscitate (DNR), do not attempt resuscitation (DNAR), and allow natural death (AND) orders.^{3,4} These are different names for the same hospital order that says “Do not call a code or perform CPR when the person’s heart stops beating or lungs stop breathing.” The hospital order should correspond to a note in the chart that documents the discussion with the patient and family and details the essential points of the discussion, such as the patient’s values and wishes for quality of life that led to the decision. The AHA’s definition of this hospital order is

A Do Not Attempt Resuscitation (DNAR) order

is given by a licensed physician or alternative authority as per local regulation, and it must be signed and dated to be valid. In many settings, “Allow Natural Death” (AND) is becoming a preferred term to replace DNAR, to emphasize that the order is to allow natural consequences of a disease or injury, and to emphasize ongoing end-of-life care. The DNAR order should explicitly describe the resuscitation interventions to be

Address correspondence to

Joseph L. Breault, MD, ScD, MPH, CIP
Chair, Ochsner Institutional Review Boards
Ochsner Clinic Foundation
Brent House 421, 1514 Jefferson Highway
New Orleans, LA 70121
Tel: (504) 842-3589
Fax: (504) 842-3648
Email: jbreault@ochsner.org

Keywords: AND, allow natural death; CPR, cardiopulmonary resuscitation; code status; DNAR, do not attempt resuscitation; DNR, do not resuscitate

The author has no financial or proprietary interest in the subject matter of this article.

performed in the event of a life-threatening emergency. In most cases, a DNAR order is preceded by a documented discussion with the patient, family, or surrogate decision maker addressing the patient's wishes about resuscitation interventions. In addition, some jurisdictions may require confirmation by a witness or a second treating physician.¹

DNR/DNAR/AND orders protect and promote patients' autonomy so people can make clear that they do or do not want CPR (ie, to have a code called) if their heart or breathing stops during the hospitalization. The order is written after a discussion with the attending physician that minimizes misunderstandings of what the order means and maximizes good communication among patients, family, and healthcare providers. When the attending physician writes the order in the chart, it is a communication mechanism to ensure that the various members of the healthcare team on different shifts know what to do when this particular patient's heart stops beating or lungs stop breathing.

A common misunderstanding patients and families have is that CPR (calling a code) will keep patients alive and living as they were before the code. Sadly, in-hospital resuscitation in the end-of-life setting usually does not work well. For example, in a

review of literature Diem et al⁵ in 1996 reported long-term survival of 6.5%-15% for those with in-hospital cardiac arrest. Tribble⁶ in 2008 reviewed the literature and concluded "...survival to hospital discharge hovers around 15% and rarely exceeds 20%." Also, Peberdy et al⁷ reviewed 86,748 adult, consecutive in-hospital cardiac arrest events in the National Registry of Cardio-pulmonary Resuscitation obtained from 507 medical/surgical participating hospitals from January 1, 2000, through February 1, 2007. They found that rates of survival to discharge were 14.7% during the night versus 19.8% during the day/evening. Of course, CPR/ACLS success depends on a patient's specific situation. As Bishop et al⁸ stated

In truth, CPR/ACLS is a medical intervention with reasonable success in some kinds of patients with certain kinds of diseases. Furthermore, it must be remembered that CPR/ACLS also has miserable success rates in certain types of patients with some other kinds of diseases.

One example of the diseases with miserable CPR/ACLS success rates is end-stage cancer. A meta-analysis of 42 studies from 1966-2005 comprising

Table. Shorthand Used for the Hospital Order That Means *Do Not Call a Code*

Hospital Order Abbreviation	DNR	DNAR	AND
Stands for	Do not resuscitate	Do not attempt resuscitation	Allow natural death
Pros	Familiar to all	Clearer language indicates only a resuscitation attempt, not that it is likely to succeed	Clearer language affirms that patients want nature to take its course, without CPR/ACLS interventions unlikely to succeed
Cons	<ul style="list-style-type: none"> • Can give the misimpression to patients and family that the attempt at resuscitation is likely to succeed • Can make patients (or family) think they are deciding whether to live or die, even though in an end-of-life situation, all roads lead to death 	Less familiar than DNR	<ul style="list-style-type: none"> • Can be confused with the conjunction "and" • Clarification needed in orders about what is not wanted (CPR/ACLS) and what is wanted (pain control, hydration, etc) • May not fit all situations
Examples of who uses it	Most hospitals	AHA, ¹ British Medical Association, ³ many hospitals	Hospice Patients' Alliance, ⁴ some hospitals

CPR, cardiopulmonary resuscitation; ACLS, advanced cardiac life support; AHA, American Heart Association.

1,707 patients by Reisfield et al⁹ found that only 2.2% of cancer patients whose heart arrested in intensive care survived to hospital discharge.

Part of the discussion with a patient toward the end of life about whether to have a DNR/DNAR/AND order includes the attending physician's judgment on the chance of CPR/ACLS helping the patient. Additional meta-analyses that give the physician useful survival data for in-hospital arrest and that might inform patients and their families of realistic survival rates depending on their kind of disease include those by Ebell and Afonso¹⁰ and by de Vos et al.¹¹

In many circumstances, even when patients are able to make their own decisions, educating family members about the sad reality of resuscitation survival rates pending clinical status is important. Commonly, family members are ushered out of the patient room during a resuscitation effort, leaving a somewhat cold feeling about the process that often results in death. Albarran et al¹² interviewed 21 resuscitation survivors plus matched controls and found that hospitalized patients reported a favorable disposition toward family-witnessed resuscitation; this view appears to be strengthened by those successfully surviving a resuscitation episode. Readers may or may not agree with the view of Albarran et al that physicians should strive to facilitate family-witnessed resuscitation by establishing, documenting, and enacting patient preferences. Regardless, it is helpful to incorporate into patient and family discussions what will likely occur in practice if a code is called.

DNR/DNAR/AND hospital orders have limitations and liabilities no matter what they are called. Poor communication about the order among the patient, family, and healthcare team is common. The patient and family may have the misconception that the order will mean less care and fewer interventions beyond CPR and calling a code. Family members making a decision when the patient cannot may feel guilty, confused, or overwhelmed. Surrogate decisionmakers should use substituted judgment—what the patient would have wanted—but sometimes a surrogate decides against the patient's presumed wishes because the surrogate has values that differ from those of the patient and cannot take on the proper role. The surrogate decisionmaker may want futile interventions against physician advice. These limitations are not solved by changing the name of the order from DNR to DNAR or AND.

Yuen et al¹³ argue in favor of The Joint Commission creating standards such as the following for discussions prior to decisionmaking:

1. Determining the patient's goals of care

2. Educating the decisionmaker about the patient's disease course, prognosis, the potential benefits and burdens of CPR, and alternatives
3. Providing a recommendation based on a medical assessment of the likelihood that CPR will succeed and of its benefits or burdens given the patient's goals
4. Engaging in discussions led by the attending physician, conducted within 72 hours of hospitalization and revisited as needed
5. Documenting the content of discussions and rationale for conclusions in the patient's chart

Yuen and colleagues' suggestions are thorough guidelines that medical staffs may want to adopt, house staff should be trained in, and few would argue with.

Even though DNR/DNAR/AND hospital orders have limitations, language is important, and better shorthand does help clarify what is and is not meant. The online responses to the *New York Times*¹⁴ and *USA Today*¹⁵ articles (excerpted in the sidebar) indicate a split between those who think using AND orders will make the process better and those who think their use foolish and misguided. The move to change the shorthand for no CPR/ACLS from DNR to DNAR or AND in hospital policies should be only one of

The key question: Should your parent have a DNR order, meaning *do not resuscitate*?

Before you answer, another key question: Would that decision be any clearer, easier, or less painful if the order was instead called AND, for *allow natural death*?

Some healthcare professionals think it might be. Even if the staff's subsequent actions were exactly the same, if in either case a patient would receive comfort care to relieve pain but would not undergo cardiopulmonary resuscitation, nomenclature might make a difference.

-*New York Times*, December 6, 2010¹⁴

"Do you want to sign a *Do Not Resuscitate* form?"

When asked, family members often balk. They believe they are giving up, condemning a loved one to death.

Some are now asking the question a different way: Do you want to allow natural death?

-*USA Today*, March 2, 2009¹⁵

many approaches for hospitals to improve communication surrounding the decisionmaking that culminates in the no CPR order.

PERSONAL EXPERIENCE

I grew up using the DNR language. During my training in the Social Medicine Residency Program at Montefiore Hospital in the Bronx in the 1980s during the AIDS epidemic's early years, I had numerous DNR discussions with patients. Unfortunately, many patients were young, their prognosis dismal, and their frail, wasted bodies not likely to survive a CPR assault. That time period offered no hope of useful interventions to improve survival.

Discussions about how these dying AIDS patients wanted to proceed if their hearts stopped were often simple and straightforward. They knew they were dying and that medicine could do little. They had come through a very difficult period over the prior year or two and knew they were slipping away. When the discussion came to whether a DNR order should be written, almost all said that it made sense and wanted it. They knew that CPR/ACLS was not going to change the outcome in their circumstances.

When the patient was no longer alert or able to participate in his or her own decisions, the discussion was held with the family. This was a more difficult conversation. Sometimes families thought they were being asked to render a death sentence, and it made them feel guilty. Eventually after much discussion, most realized that the death sentence had already happened. We were only discussing how the last days should be spent and addressing the benefits of a peaceful death with family members at the patient's side versus CPR/ACLS with almost no chance of any meaningful success.

In retrospect, I think it would have been a much better discussion for all involved if the hospital order language used AND or DNAR. These terms would not have held as much emotional baggage or so strongly given the misimpression that resuscitation was likely to succeed.

CONCLUSIONS

DNR is obsolete shorthand. DNAR or AND should replace it. In 2005, the AHA adopted DNAR to replace DNR in their Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care.¹⁶ Hospital medical staffs would be wise to consider updating end-of-life policies to include the shorthand language of DNAR or AND and to incorporate the communications ideas of Yuen et al¹³ about such orders. Language does matter, and a language change is an opportunity for the medical staffs to consider how the DNAR or AND discussion should be structured to promote consistently high quality end-of-life care.

Barriers to implementing this terminology change exist on administrative and cultural levels within health-care organizations. Some argue that the significant time and resources spent in staff reeducation might be better spent in clinical education or direct patient care. Others argue that significant costs are associated with this terminology change, including destroying old forms, printing new ones, adjusting electronic medical record systems, and educating staff. Still others flatly disagree that any change is needed, even if it is easy to accomplish.

Yes, change will take time, and it is not free. But I argue that the benefits far exceed the costs. Regardless of terminology, much more education and training among hospital physicians and other staff on DNR/DNAR orders are needed to ensure a good communication process that is universally applied to all hospital admissions. The vast majority of time and money spent will be on an education process that should occur anyway, so why not use the best terminology? As a practical implementation method, many hospitals have a bioethics committee that can evaluate local patient needs and the hospital situation and then recommend to the medical staff what should change and how to provide the needed education and training.

As the population ages and medical technology keeps very ill people alive for a very long time, our understanding of high quality care expands. Increasingly, patients and their families want to have not only a fix to their medical problems but also a good end when the fixing no longer works. High quality care includes high quality end-of-life care, a supportive emotional environment to discuss end-of-life wishes, and the manner in which patients want the end to unfold when death is at the door.

REFERENCES

1. Morrison LJ, Kierzek G, Diekema DS, et al. Part 3: Ethics: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation*. 2010 Nov 2;122(18 Suppl 3):S665-S675.
2. Boozang KM. Death wish: resuscitating self-determination for the critically ill. *Ariz Law Rev*. 1993 Spring;35(1):23-85.
3. British Medical Association; Resuscitation Council (UK); Royal College of Nursing. Decisions Relating to Cardiopulmonary Resuscitation: a joint statement from the British Medical Association, the Resuscitation Council (UK) and the Royal College of Nursing. *J Med Ethics*. 2001 Oct;27(5):310-316; discussion 317-323.
4. Meyer C. Allow natural death—an alternative to DNR? <http://www.hospicepatients.org/and.html>. Accessed September 14, 2011.
5. Diem SJ, Lantos JD, Tulskey JA. Cardiopulmonary resuscitation on television. Miracles and misinformation. *N Engl J Med*. 1996 Jun 13;334(24):1578-1582.
6. Tribble DB. DNAR: more than code or no code. *AAHPM Bulletin*. 2008 Spring;9(1):1-4.

7. Peberdy MA, Ornato JP, Larkin GL, et al. Survival from in-hospital cardiac arrest during nights and weekends. *JAMA*. 2008 Feb 20;299(7):785-792.
8. Bishop JP, Brothers KB, Perry JE, Ahmad A. Reviving the conversation around CPR/DNR. *Am J Bioeth*. 2010 Jan;10(1):61-67.
9. Reisfield GM, Wallace SK, Munsell MF, Webb FJ, Alvarez ER, Wilson GR. Survival in cancer patients undergoing in-hospital cardiopulmonary resuscitation: a meta-analysis. *Resuscitation*. 2006 Nov;71(2):152-160.
10. Ebell MH, Afonso AM. Pre-arrest predictors of failure to survive after in-hospital cardiopulmonary resuscitation: a meta-analysis. *Fam Pract*. 2011 May 18. Epub ahead of print.
11. de Vos R, Koster RW, De Haan RJ, Oosting H, van der Wouw PA, Lampe-Schoenmaeckers AJ. In-hospital cardiopulmonary resuscitation: prearrest morbidity and outcome. *Arch Intern Med*. 1999 Apr 26;159(8):845-850.
12. Albarran J, Moule P, Bengner J, McMahon-Parkes K, Lockyer L. Family witnessed resuscitation: the views and preferences of recently resuscitated hospital inpatients, compared to matched controls without the experience of resuscitation survival. *Resuscitation*. 2009 Sep;80(9):1070-1073.
13. Yuen JK, Reid MC, Feters MD. Hospital do-not-resuscitate orders: why they have failed and how to fix them. *J Gen Intern Med*. 2011 Jul;26(7):791-797.
14. Span P. D.N.R. by another name. *The New York Times*. December 6, 2010. <http://newoldage.blogs.nytimes.com/2010/12/06/d-n-r-by-another-name/>. Accessed September 14, 2011.
15. Booth Reed J. 'Do not resuscitate' vs. 'allow natural death.' *USA Today*. March 2, 2009. http://www.usatoday.com/news/health/2009-03-02-DNR-natural-death_N.htm. Accessed September 14, 2011.
16. 2005 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation*. Dec 13, 2005;112(24 Suppl):IV1-203.

This article meets the Accreditation Council for Graduate Medical Education and American Board of Medical Specialties Maintenance of Certification competencies for Patient Care, Professionalism, and Systems-Based Practice.